

The Top 10 East Kentucky Weather Events of 2012

This year turned out to be a hodgepodge of weather phenomenon from tornadoes in February to snow in October. Several first time events occurred and many records were broken over the course of the year. With so many significant events to choose from, we have decided to upgrade from a top five to a top ten significant weather events for 2012.

Beginning with the most significant event, here is the Top Ten Weather Events of 2012:

1. March 2nd Tornadoes:

The most significant weather event of 2012 was easily the March 2nd tornadoes. A total of 4 tornadoes occurred in the NWS Jackson service area on this date. These tornadoes were chosen as number 1 for several reasons: the 16 direct fatalities which occurred in our county warning area as a result of these tornadoes (2 in Menifee County, 2 in Johnson County, 6 in Morgan County and 6 in Laurel County), the first tornado in recorded history to affect Martin County, the first occurrence of a tornado hitting the same location in a 2 day span in Kentucky (West Liberty in Morgan County), the first occurrence of an EF2 or greater tornado on record in Menifee, Magoffin, Johnson and Martin Counties, and 1 of the top 3 longest tracked tornadoes in Kentucky since 1950 (60 miles in length through eastern Kentucky). Overall, there were a total of 18 tornadoes that occurred on March 2nd across the state of Kentucky, resulting in 24 fatalities, 200+ injuries and over 150 million dollars in damage.

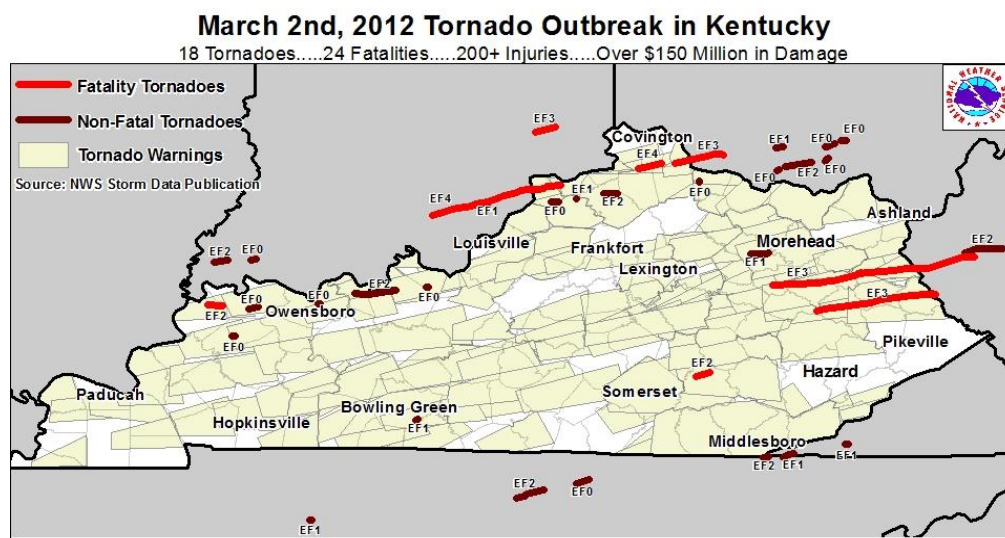


Figure 1: March 2nd tornado outbreak across Kentucky.

For more information about these events:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=80087&source=2

2. Drought/Heat Wave:

Drought:

Low rainfall totals for May and June, combined with the record warmth during the month of June, produced a moderate drought across the area. Drought conditions did not improve until the later part of July, as you can see from the drought monitor images below:

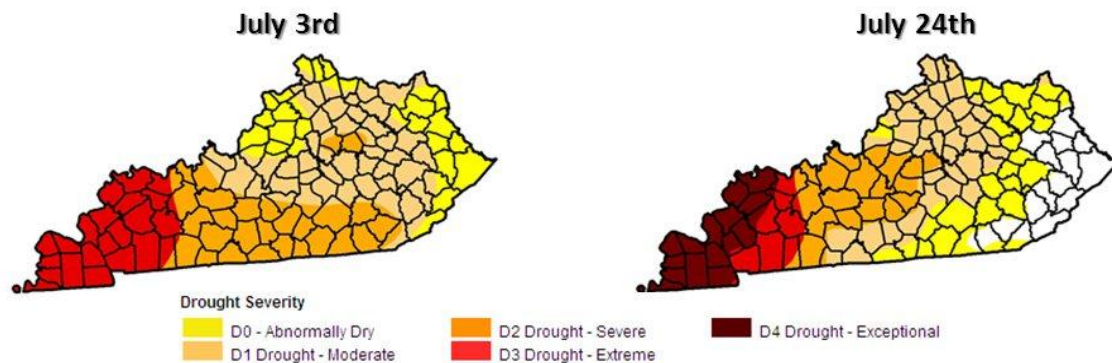


Figure 2: Drought Monitor comparison between July 3rd and July 24th.

For more information about this Event:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=84739&source=2

Heat Wave:

A heat wave for the record books occurred across the Bluegrass State between June 28th and July 8th, 2012. The intensity of the heat rivaled the historic heat waves of the 1930s Dust Bowl. The beginning of the heat wave was Thursday, June 28th, when most locations reached near 100°F. On Friday, June 29th, the mercury soared past 100 degrees across most of eastern Kentucky. New all-time record highs were established at both the NWS in Jackson (104°F) and at the London-Corbin Airport (105°F).

Although triple digit highs only lasted from June 29th through July 1st, the heat wave continued through July 8th, with temperature readings of 90 degrees or higher for 11 consecutive days. This set a new all-time record for Jackson and the second longest streak at the London-Corbin Airport.

For more information about this event:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=85215&source=2

3. February 29th Tornadoes

While not unheard of, it is very unusual for tornadoes to occur in eastern Kentucky during the month of February. On February 29th, 2 tornadoes moved across portions of eastern Kentucky causing scattered damage across portions of Morgan and Pulaski Counties. There were no fatalities or injuries associated with these tornadoes.

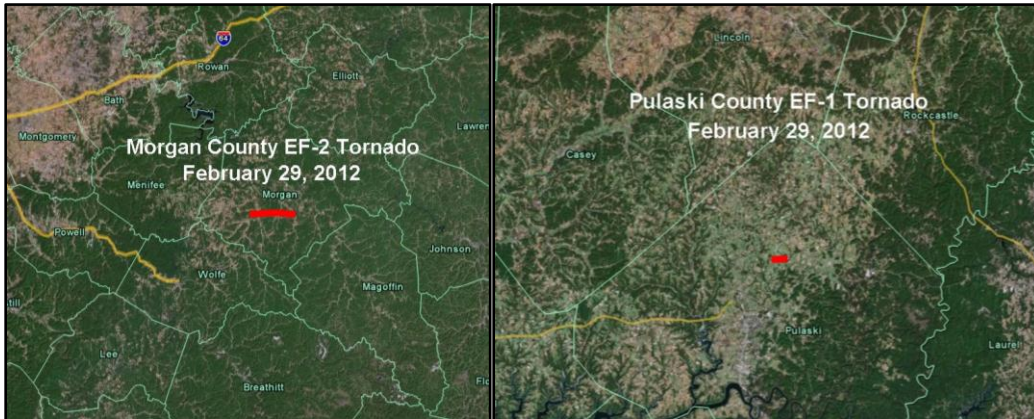


Figure 3: February 29th Morgan County and Pulaski County tornadoes.

For more information about these events:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=79964&source=2

4. July 5th Severe Weather Event:



Figure 4: Damage from wind at Camp Nathaniel on July 5th.

A complex of thunderstorms developed over eastern Kentucky during the afternoon hours on July 5th. The main impact from these storms was damaging winds as they dropped southward between 1:30 pm and 5:30 pm EDT. There were numerous instances of wind damage reported to the NWS in Jackson. A man was injured at Bernstadt in Laurel County when a tree fell on him. Some of the strongest winds occurred in western Knott County. A NWS Storm Damage Survey Team found damage associated with downburst winds of 80 to 100 mph had affected Camp Nathaniel near the Emmalena Community. Twenty-one of the thirty-three counties serviced by NWS Jackson reported damage from these storms, ranging from uprooted trees and damaged buildings to power outages.

For more information about this event:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=85125&source=2

5. **October 27th – 31st, 2012 Super Storm (Hurricane Sandy):**

The major storm system, created as Hurricane Sandy merged with a strengthening upper level disturbance, brought wide ranging and severe impacts to the eastern United States between Sunday October 28th and Wednesday October 31st. The far eastern portion of Kentucky received nearly continuous rain beginning Saturday, October 27th. The rain began to change over to a heavy, wet snow as early as

the afternoon hours of Sunday October 28th, when snow first began accumulating on top of Black Mountain in Harlan County, at around 4,000 ft. elevation. The snow then made it down to the valleys of eastern Kentucky during the overnight hours Monday night and Tuesday morning. Snowfall accumulations were highly variable across eastern Kentucky, ranging from nothing up to 18 inches.

For more information about this event:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=88880&source=2

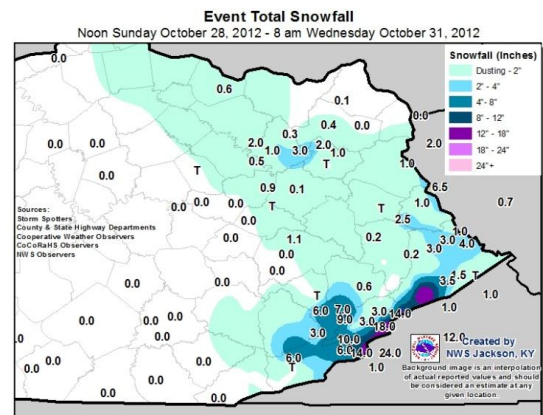


Figure 5: Snowfall map from October 2012 Super Storm.

6. **February 18th – 19th Snow Event:**

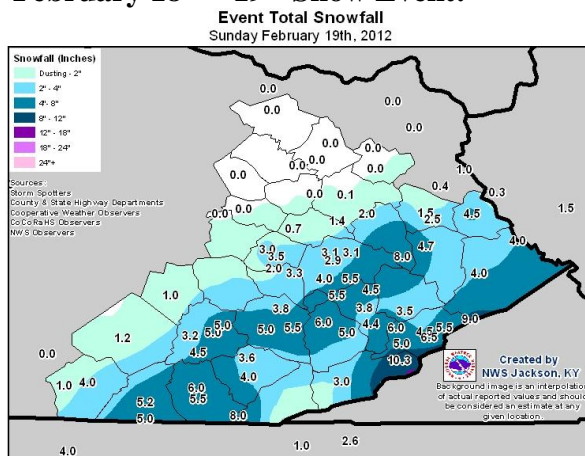


Figure 6: Snowfall map for February 19th storm.

A storm system tracking across the Deep South from late Saturday night February 18th through Sunday night February 19th brought several inches of heavy, wet snow to southeast Kentucky. The southerly track of the storm kept accumulating snow confined to locations mainly along and to the south of the Mountain Parkway, with the largest amounts occurring at elevations above 2,000 ft. A few of the higher snowfall totals were 10.3 inches at Black Mountain

in Harlan County, 9 inches at Kingdom Come State Park in Harlan County, and 8 inches at Williamsburg in Whitley County. The heavy, wet snowfall brought power outages to as many as 30,000 southeast Kentucky residents for several days.

For more information about this event:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=79387&source=2

7. July 1st Severe Weather Event:

Isolated severe thunderstorms produced large hail and downed trees and power lines across portions of eastern Kentucky during the middle to late morning hours of July 1st. Two inch diameter hail was reported near Virgie in Pike County. A second more widespread episode of severe weather occurred during the evening hours with numerous reports of downed trees and power lines across parts of northeast and east Kentucky. The area heaviest hit was Elliott County, which had several downed trees, along with a barn being flattened along Wells Creek. Wind gusts from these thunderstorms were estimated to range between 60 to 70 mph.

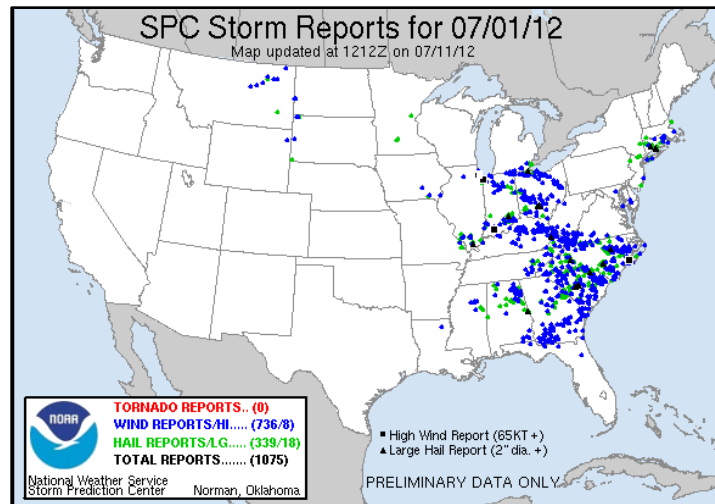


Figure 7: Storm reports for July 1st, 2012 from the Storm Prediction Center.

8. March 5th Snow Event:

A fast moving low pressure system dumped snow across eastern Kentucky during the overnight and morning hours. The greatest amounts were mostly concentrated in the northern coalfields, with 6.5 inches measured at the cooperative weather station near Farmers in Rowan County, 5.4 inches at Rogers in Wolfe County, 5.2 inches at Howard's Mill in Montgomery County and 5 inches at both Coon in Magoffin County and Mount Sterling in Montgomery County. Other locations across eastern Kentucky received anywhere from 4 inches to 3 tenths of an inch.

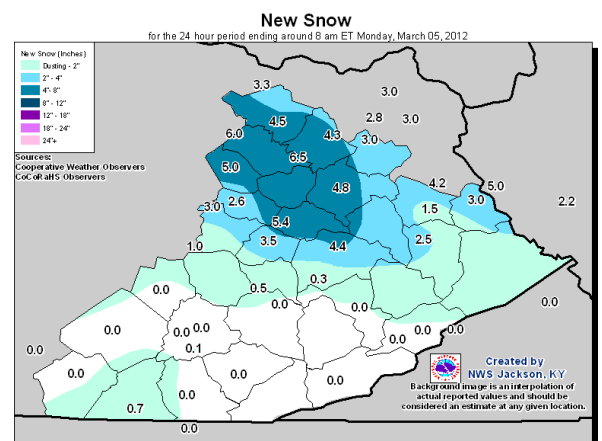


Figure 8: Snowfall map for March 5th.

For more information about this event:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=80138&source=2

9. Warmest March:

March 2012 established new monthly temperature records for both the National Weather Service (NWS) Office in Jackson and the London Corbin Airport. The NWS finished March with an average temperature of 59.2°F, which is 11.8°F above the normal of 47.4°F, besting the old benchmark of 54.2°F from 2007. At the London Corbin Airport, the average temperature for March 2012 was 57.3 degrees, which was 9.9°F above the normal of 47.4°F, and bested the old benchmark of 55.1°F from 2007.

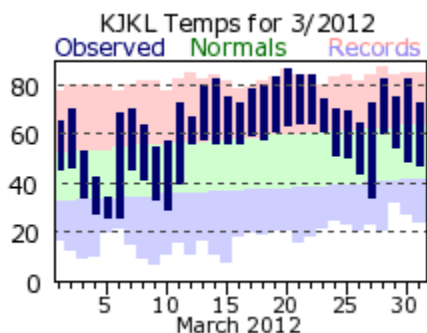


Figure 9: NWS Jackson Temperatures for March 2012

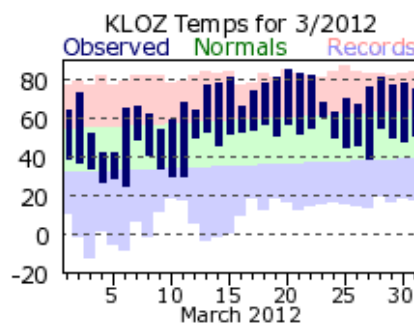


Figure 10: London Temperatures for March 2012

For more information about this event:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=81311&source=2

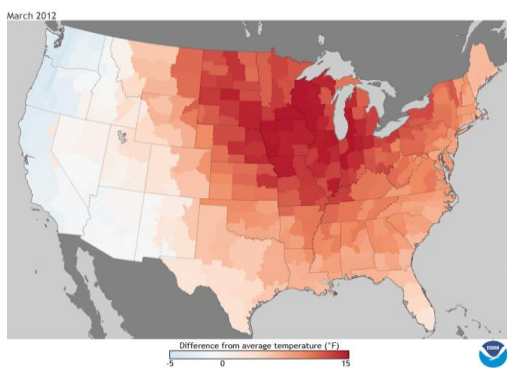


Figure 11: U.S. Temperature Anomalies for March 2012.

Not only was this the warmest March on record for much of Eastern Kentucky, it was also the warmest March on record for the contiguous United States. Record and near-record breaking temperatures dominated the eastern two-thirds of the nation and contributed to the warmest March on record for the contiguous United States, a record that dates back to 1895. The

average temperature of 51.1° F was 8.6° F above the 20th century average for March and 0.5° F warmer than the previous warmest March in 1910. Of the more than 1,400 months that have passed since the U.S. record began, only one month, January 2006, has seen a larger departure from its average temperature than March 2012.

For more information about this event:

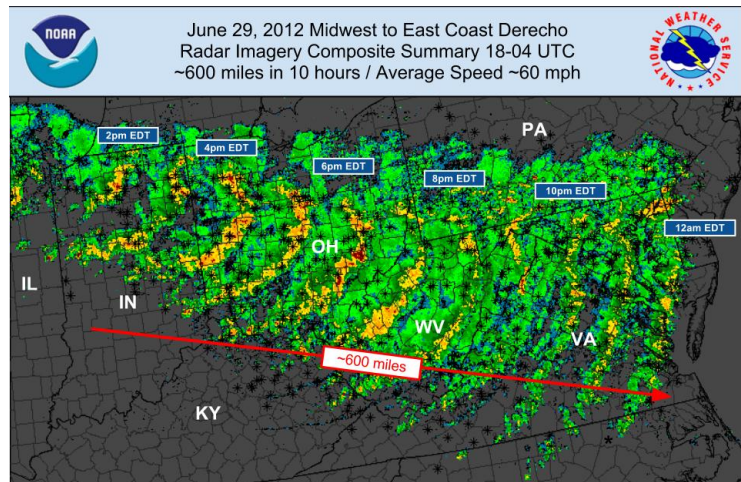
<http://www.ncdc.noaa.gov/sotc/national/2012/3>

10. June 29th Derecho Wind:

A complex of thunderstorms, known as a *derecho*, raced from Indiana and Ohio across the central Appalachians and into the Mid-Atlantic States during the late afternoon and evening hours of June 29th. The tail end of this complex skirted eastern Kentucky, but an outflow boundary pushed well away from the storms themselves and brought damaging winds well outside of areas that saw any rain or thunderstorm activity. The outflow boundary produced wind speeds of up to 68 mph causing numerous downed trees and power outages. The damaging winds extended as far south as an Irvine to Hazard to Elkhorn City line before diminishing. At one point, up to 63,800 Kentucky Power customers were without power in eastern Kentucky alone.

For more information about this event:

http://www.crh.noaa.gov/news/display_cmsstory.php?wfo=jkl&storyid=84893&source=2



Over 800 preliminary thunderstorm wind reports indicated by *
Peak wind gusts 80-100mph. Millions w/o power.

Summary Map by G. Carlin
NWS/Storm Prediction Center

Figure 12: Progression of the June 29th Derecho.